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OM protein - protein search, using sw model

Run on: May 7, 2002, 12:00:48 ; Search time 53.91 Seconds
(without alignments)
195.111 Million cell updates/sec

Title: US-09-772-103-10

Perfect score: 742

Sequence: 1 MAVLYFLCLVAVFFPSCVLSQ.....MKRGYAMDYWGQGTLYTQVSS 142

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 522463 seqs, 74073290 residues

Total number of hits satisfying chosen parameters: 522463

Maximum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 0%

Listing first 45 summaries

Database : A_Geneseq_1101:*

1: /SIDS8/gcdata/genedata/geneseq/geneseq/AA1980.DAT:*

2: /SIDS8/gcdata/genedata/geneseq/geneseq/AA1981.DAT:*

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12: /SIDS8/gcdata/genedata/geneseq/geneseq/AA1991.DAT:*

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18: /SIDS8/gcdata/genedata/geneseq/geneseq/AA1997.DAT:*

19: /SIDS8/gcdata/genedata/geneseq/geneseq/AA1998.DAT:*

20: /SIDS8/gcdata/genedata/geneseq/geneseq/AA1999.DAT:*

21: /SIDS8/gcdata/genedata/geneseq/geneseq/AA2000.DAT:*

22: /SIDS8/gcdata/genedata/geneseq/geneseq/AA2001.DAT:*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query	Match	Length	DB ID	Description
1	742	100.0	142	22	AAG66523	Humanised anti-CTL
2	664	89.5	142	22	AAG66520	Mouse antibody 26
3	603.5	81.3	137	18	AAW0273	Heavy Chain Of HUM
4	545.4	73.5	140	18	AAW2538	Murine anti-human
5	541.5	73.0	137	22	AAB61975	Ganglioside GD2 sp
6	529.0	71.4	151	17	AAR89941	Humanised anti-CD3
7	529.5	71.4	135	8	AAP70991	Sequence of the he
8	527.5	71.1	137	18	AAW30277	Heavy chain of MUM
9	527	71.0	138	17	AAM01146	MB 10.1 heavy cha
10	525	70.8	119	17	AAR98492	NEWM humanised 2B6
11	525	70.8	138	22	AAB69656	Murine m1k-beta a

ALIGNMENTS

RESULT 1	AAG66523	standard; Protein; 142 AA.
ID	AAG66523	
XX		
AC	AAG66523;	
XX		
DT	22-OCT-2001	(first entry)
XX		
DE		Humanised anti-CTL4 heavy chain.
XX		
KW		Human: CTLA4; cytotoxic T lymphocyte associated antigen 4; anti-CTLA4; immunosuppressive; immunomodulator.
KW		T cell; humanised antibody; autoimmune disorder; allergy; heavy chain.
XX		
OS		Homo sapiens.
OS		Synthetic.
XX		
PN	WO200154732-A1.	
XX		
PD	02-AUG-2001.	
XX		
PF	26-JAN-2001; 2001WO-US02653.	
XX		
PR	27-JAN-2000; 2000US-0178473.	
XX		
PA	(GEMY) GENETICS INST INC.	
XX		
PI	Carreno BM, Wood C, Turner K, Collins M,	
PI	O'Hara D, Hinton P, Tsurushita N,	
XX		
DR	WPI; 2001-483195/52.	
DR	N-PSDB; AAH76441, AAH76443.	

Sequence 142 AA; 142: 22: length 142:

Query	Match	Score	Length	Start	End	Subject	Score	Length	Start	End	Subject
Qy	1	MAVLVLFCLVAFPSCLVSOVOLQESQGPGLVKPSQTLSLCTVSGFSLTTSYGVYWWRQP	60	1	100	Best, Local Similarity	100	0	4	3e+60	Pred. No.
Db	1	mavlvlfclvafpsclvsovolqesqgpglvkpsqtlslctvsgfsltssygvyywwrqp	60	1	142	Matches	142	0	0	0	Gaps
Qy	61	GKGLEWLGVIVAGGTNNYNSALMSRLTISKDTFSKNOVSLKLSVTAADTAVYCARGPPH	120	61	1	Conservative	0	0	0	0	Indels
Db	61	gkglewlgvivaggtnyntsalsrltiskdtfsknovslklsvtaadtyycargpph	120	61	142	Matches	142	0	0	0	Missmatches
Qy	121	AMMKRGYAMDYNGQGTIVYSS	142	121	1			0	0	0	
Db	121	ammkrqyamdyngqgtivyss	142	121	142			0	0	0	

RESULT 2
AAG66520

KW
XX
OS
XX
PN
XX
PD
XX
PF
XX

illary, anterior
Mus musculus.
WO200154732-A1.
02-AUG-2001.
26-JAN-2001; 2001WO-US02653.
PF
XX

PI Carrasco BM, Wood C, Tsurushita N;
O'Hara D, Hinton P, Tsurushita N;

XX WPI; 2001-483195/52.

XX DR N-PSDB; AAH76438.

XX Novel antibody-toxic group conjugate comprising an antibody that
recognizes a molecule expressed only on activated T cells, useful
modulating immune response for treating autoimmune disorder, all
response

XX PR PS Example 7; Page 84; 123PP; English.

XX The invention relates to an antibody-toxic group conjugate comprising
CC a molecule expressed on a molecule that specifically recognises a molecule expressed on
CC an antibody that recognises a molecule expressed on activated T cells, and a toxic group. The T cell molecule is
CC activated T cells, and a toxic group. The T cell molecule is
CC preferably human cytotoxic T lymphocyte associated antigen 4 (CTLA4) antibody.
CC The antibody of the invention is a humanised anti-CTLA4 antibody
CC comprising a sequence of 128 or 142 amino acids fully defined in
CC comprising a sequence of 128 or 142 amino acids fully defined in
CC specification. The antibody-toxic group conjugate is useful for
CC modulating the immune response in a subject suffering from a disease
CC or condition such as autoimmune disorder, immune response to a therapeutic protein
CC or allergic response or for research purposes, e.g., in stabilising
CC the antibody is also useful for research purposes, e.g., in stabilising
CC and isolating CTLA4-bearing cells, the antibody is also useful
CC for isolating specific IL-2 receptor-bearing cells
CC T-cell typing, for isolating specific IL-2 receptor-bearing cells
CC fragments of the receptor, for vaccine preparation, and for determining
CC the effectiveness of an agent to down regulate CTLA4 activity.
CC the present sequence is the heavy chain variable region of mouse
CC antibody 26. It was used in the construction of the humanised antibody
CC antibody of the invention.

XX Sequence 142 AA;

Query	Match	Score	DB 22;	Length
Query	MAVLVLICLVAFPSCVLSOYLOQESGGLVKPSQTLISLTCTVSGFSLTSYGVYWWROPP	664	DB 22;	Length 142;
Best	MAVLVLICLVAFPSCVLSOYLOQESGGLVKPSQTLISLTCTVSGFSLTSYGVYWWROPP	664	DB 22;	Length 142;
Local	MAVLVLICLVAFPSCVLSOYLOQESGGLVKPSQTLISLTCTVSGFSLTSYGVYWWROPP	664	DB 22;	Length 142;
Similarity	89.5%	Score 664;	DB 22;	Length 142;
Pred.	MAVLVLICLVAFPSCVLSOYLOQESGGLVKPSQTLISLTCTVSGFSLTSYGVYWWROPP	664	DB 22;	Length 142;
No.	MAVLVLICLVAFPSCVLSOYLOQESGGLVKPSQTLISLTCTVSGFSLTSYGVYWWROPP	664	DB 22;	Length 142;
1-e-53;	MAVLVLICLVAFPSCVLSOYLOQESGGLVKPSQTLISLTCTVSGFSLTSYGVYWWROPP	664	DB 22;	Length 142;
Mismatches	0;	Score 664;	DB 22;	Length 142;
Indels	0;	Score 664;	DB 22;	Length 142;
Gaps	0;	Score 664;	DB 22;	Length 142;
Matches	125;	Score 664;	DB 22;	Length 142;
Conservative	8;	Score 664;	DB 22;	Length 142;
Qy	1 MAVLVLICLVAFPSCVLSOYLOQESGGLVKPSQTLISLTCTVSGFSLTSYGVYWWROPP	664	DB 22;	Length 142;
Db	1 mavlvlclvapscvlsqvlkesqgl1vapqsls1itctvsgfsltsygvywwropp	664	DB 22;	Length 142;
Qy	61 GKGLWLGIVWAGGTNNNSALMSRLTISKDTDSKNOYSEKLSSVTAADTAVYCCARGPPH	120	DB 22;	Length 142;
Db	61 gkglwlgivwaggttnynsalsmrs1sksqflkmss1qtdtamycargpph	120	DB 22;	Length 142;
Qy	121 AMMKRGYANDYWGOGTLYTVSS	142	DB 22;	Length 142;
Db	121 ammkrgyandywgomtlytvss	142	DB 22;	Length 142;

RESULT	3	AAW30273		AAW30273 standard; Protein; 137 AA.	
ID	AAW30273				
XX					
AC	AAW30273;				
XX					
DT	07-JUL-1998	(first entry)			
XX					
DE	Heavy chain of	HumMATS.22.			
XX					
KW	HumMATS.22; antibody; platelet derived growth beta receptor; PDGF-R beta;				
KW	inhibition; intimal hyperplasia; vasculature; restenosis; angioplasty;				
KW	heavy chain.				
XX					
OS	Homo sapiens.				
XX					
FH	Key	Location/Qualifiers			
FT	Protein	58..137			
FT		"note-Mature Protein"			
FT		/note-			
FT		49..54			
FT		"Complementarity determining region 1"			
FT		/note-			

FT	Binding-site	68..84	Qy	61 GKGLEWLGIVWAGGTNNNSALMSRUTISKDTSKNOVSLKLSSVTAADTAVYYCARQPPH 120
FT	Binding-site	116..126	Db	61 gkgiewigilwtgggysnalksrtiscktskngs1klssvtaadtavycar---- 116
FT	Misc-difference 20	/note= "Complementarity determining region 3"	Qy	121 AMMKRGYAMDYWGQCTLYVSS 142
FT	Misc-difference 49	/note= "Optionally Asn at position 1 of mature protein"	Db	117 -tgtrgyffidaywgqgltvvss 137
FT	Misc-difference 56	/note= "Optionally Ser at position 30 of the mature protein"	RESULT 4	
FT	Misc-difference 66	/note= "Optionally Ser at position 37 of the mature protein"	AAW22538	
FT	Misc-difference 86	/note= "Optionally Ile at position 48 of the mature protein"	ID AAW22538 standard; Protein; 140 AA.	
FT	Misc-difference 92	/note= "Optionally Ile at position 67 of the mature protein"	XX	
FT	Misc-difference 93	/note= "Optionally Val at position 73 of the mature protein"	DE Murine anti-human class II monoclonal antibody 44H104 VH chain.	
FT	Misc-difference 102	/note= "Optionally Val at position 74 of the mature protein"	XX	
FT			XX	Antibody; light chain; variable region; hybridoma cell line 44H104; immune response; enhance; stimulate; vaccine; immunodiagnosis; antigen delivery.
FT			XX	KW KW KW KW
FT			OS	Mos musculus.
FT			PN	W09640941-A1.
FT			XX	W09640941-A1.
FT			PD	19-DEC-1996.
FT			XX	W09640941-A1.
FT			PF	07-JUN-1996;
FT			XX	W09640940.
FT			PR	07-JUN-1995;
FT			XX	95US-0483576.
FT			PA	(CONN) CONNAUGHT LAB LTD.
FT			XX	Anand NN, Barber BH, Caterini JE, Cates GC, Klein MH;
FT			DR	WPI; 1997-077271/07.
FT			DR	N-PSDB; AAT77832.
FT			XX	Recombinant conjugate antibody mol., modified for delivering an antigen - elicits enhanced immune response without the use of adjuvant to generate antibodies which are useful in vaccines or immuno:diagnosis
FT			XX	Example 1; Fig 1B; 64pp; English.
FT			XX	Novel recombinant conjugate antibody molecules comprise a monoclonal antibody specific for a surface structure of antigen presenting cells (APC), genetically modified to contain at least one antigen exclusively at one or more preselected sites. The conjugate is capable of delivering the antigen to APC and eliciting an immune response to the antigen. The new conjugates are useful as vaccines and are able to elicit an enhanced immune response without the use of an adjuvant.
FT			CC	In a specific example, a conjugate was constructed using the murine anti-human class II monoclonal antibody secreted by hybridoma CLIB36. The peptide CLIB36 was chosen as antigen; it consists of a tandemly linked T and B cell epitope derived from HIV MN strain. The present sequence represents the heavy chain variable region from 44H104 which was used in the preparation of a conjugate with antigen CLIB36.
FT			XX	Example 1; Fig 1B; 64pp; English.
FT			CC	Novel recombinant conjugate antibody molecules comprise a monoclonal antibody specific for a surface structure of antigen presenting cells (APC), genetically modified to contain at least one antigen exclusively at one or more preselected sites. The conjugate is capable of delivering the antigen to APC and eliciting an immune response to the antigen. The new conjugates are useful as vaccines and are able to elicit an enhanced immune response without the use of an adjuvant.
FT			CC	In a specific example, a conjugate was constructed using the murine anti-human class II monoclonal antibody secreted by hybridoma CLIB36. The peptide CLIB36 was chosen as antigen; it consists of a tandemly linked T and B cell epitope derived from HIV MN strain. The present sequence represents the heavy chain variable region from 44H104 which was used in the preparation of a conjugate with antigen CLIB36.
SQ	Sequence	137 AA;	SQ	Sequence 140 AA;
XX	Claim 6; Fig 2C; 87pp; English.		Query Match	Query Match 73.5%; Score 545; DB 18; Length 140;
CC	This is the amino acid sequence for the heavy chain of HUM4TS.22, a novel antibody which specifically binds to the Platelet derived growth beta receptor (PDGF R beta), but not within the fifth extracellular Ig-like domain, where the antibody inhibits PDGF BB-induced proliferation of cell expressing the PDGF beta receptor. The antibody can be used in a method of inhibiting intimal hyperplasia in the vasculature of a mammal. The antibodies can be used for the treatment of disorders related to PDGF activity such as disorders involving proliferation of smooth muscle cells, and including restenosis following angioplasty.		Best Local Similarity 76.8%; Pred. No. 3..1e-42;	
CC	CC		Matches 109; Conservative 12; Mismatches 18; Indels 4; Gaps 2;	
CC	CC		Qy 1 MAVVLFCLVAFPSCLVQVQLOBSGPGLVKPSQTLSLTCTVSGFSUTSYGYYWVRQPP 60	
CC	CC		Db 1 maviallclvtffpsclalsqvgq1qesqpg1vkvksetisltctvsgfsitnyainwvrqpp 60	

Qy 60 PGKGLEWLVWAGGTNNNSALMSRLTISKDTSKNOVSLKLSLISVTAADTAVYCARPP 119
 Db 61 pgkglewlvwagtsinynsamsrlskskdnfksqvlkmslqtdtamyccayg 120

Qy 120 HAMMKRGYAMDWGOGLTVYVSS 142
 Db 121 dyv--hyandywggtvlass 140

RESULT 5
 ABB81975 standard; Protein; 137 AA.
 ID ABB81975
 DT 03-JUL-2001 (first entry)
 DE Ganglioside GD2 specific antibody related protein #1.
 KW Ganglioside; GD2; complementation determining region; CDR; antibody;
 mouse; cancer.

OS Mus musculus.
 XX WO200123573-A1.
 XX 05-APR-2001.
 XX 29-SEP-2000; 2000WO-JP06773.
 XX 30-SEP-1999; 99JP-0278290.
 XX PA (KYOW) KYOW HAKKO KOGYO KK.
 PI Hanai N, Shitara K, Nakamura K, Niwa R;
 XX WPI; 2001-266163/27.
 DR N-PSDB; AAF86854.

XX Human type complementation-determining domain transplanted antibody and
 PT derivatives against ganglioside GD2, useful in diagnosis and therapy of
 PT e.g. tumours, has low antigenicity, little side effects but potent
 PT activity in cancer -

XX Example 2; Page 96-97; 123pp; Japanese.

XX The present invention describes an antibody, which can react specifically
 CC with ganglioside GD2, and is transplanted with a human type
 CC complementation determining domain (CDR), or its fragments. The antibody
 CC and its derivatives are useful in diagnosis and therapy of tumours,
 particularly cancer diagnosis. The present sequence is a protein
 CC used in the exemplification of the invention.

XX Sequence 137 AA;

Query Match 73.0%; Score 541.5; DB 22; Length 137;
 Best Local Similarity 74.1%; Pred. No. 6.3e+12; Gaps 2;
 Matches 106; Conservative 15; Mismatches 15; Indels 7; Gaps 2;

Qy 1 MAVLVFLCLVAPPSCVLSQVQLESGPGLKPSQPLSISLCTVSGFSLTSYGVXWYRQPP 60
 Db 1 mavlvflclvappscvlsqvqlesgpqlkpsqplslsitsctvsgfslyslasynhwvrqpp 60

Qy 61 GKGLEWLGVWAGGTNNNSALMSRLTISKDTSKNOVSLKLSLISVTAADTAVYCARPPH 120
 Db 61 gkglewlgiwagstnynsalsrlskskdnfksqvlkmslqtdtamyccak---- 116

Qy 121 AMMKRGYAMDYNGQGTLYVSS 142
 Db 117 --rsddyswafaywggtivtvs 137

RESULT 6
 AAR98941 standard; Protein; 151 AA.
 ID AAR98941
 XX AC AAR98941;
 DT 03-JAN-1997 (first entry)
 DE Humanised anti-CD38 monoclonal antibody variable heavy chain.
 KW Monoclonal antibody; MAB; humanised; cancer; autoimmune disease;
 KW multiple myeloma; lymphoma; rheumatoid arthritis; CD38;
 KW complementary determining region; CDR; heavy chain; light chain.
 XX OS Mus musculus.
 OS Homo sapiens.
 XX Location/Qualifiers
 FH 52..56
 FT Region /label= CDR 1.
 FT Region /label= CDR 2.
 FT Region /label= CDR 3.
 XX PN WO9616990-A1.
 XX PD 06-JUN-1996.
 XX PF 28-NOV-1995; 95WO-GB02777.
 XX PR 02-DEC-1994; 94GB-0024449.
 XX PA (WELL) WELLCOME FOUND LTD.
 XX PI Ellis JH, Lewis AP;
 XX WPI; 1996-27724/28.
 DR N-PSDB; AAT34815.

XX Humanised monoclonal antibodies with donor framework residues 29 and
 PT 78 - esp. against CD38, useful for treating cancer and auto-immune
 PT diseases

XX Disclosure; Figure 1; 92pp; English.

XX A monoclonal antibody (MAB) which has donor CDR's of foreign origin
 CC which is of primate origin, where the heavy (H) chain of
 CC the original amino acid at position 29 or 78 of the heavy (H) chain of
 CC the framework is replaced by an amino acid at the same as or similar to
 CC the framework corresponding position of the H chain of the Ab from
 CC which the CDR's are derived, can be used for the treatment of cancer,
 CC and autoimmune diseases, specifically multiple myeloma, lymphoma and
 CC rheumatoid arthritis. The MAB binds to cb38. Replacing framework
 CC residues 29 and 78 of the humanised Ab with the original donor
 CC residues restores the antigen binding activity of the antibodies.

XX Sequence 151 AA;

Query Match 71.4%; Score 530; DB 17; Length 151;
 Best Local Similarity 69.7%; Pred. No. 7.8e+41;
 Matches 99; Conservative 19; Mismatches 20; Indels 4; Gaps 1;

Qy 1 MAVLVFLCLVAPPSCVLSQVQLESGPGLKPSQPLSISLCTVSGFSLTSYGVXWYRQPP 60
 Db 3 laviaflfc1vtfspcvlsqvlkqsgpglvhpqslsitsctvsgfslyslasynhwvrqpp 62

Qy 61 GKGLEWLGVWAGGTNNNSALMSRLTISKDTSKNOVSLKLSLISVTAADTAVYCARPPH 120
 Db 63 gkglewlgiwagstnynsalsrlskskdnfksqvlkmslqtdtamyccak---- 118

Qy 121 AMMKRGYAMDYNGQGTLYVSS 142
 Db 121 AMMKRGYAMDYWGQGTLYVSS 142

Db 119 :!: | : | | | | | | | | | | | | | | smittgfvmdswggqtsvtvss 140

RESULT 7

ID AAP70991

XX

AC AAP70991;

XX

DT 20-JUN-1991 (first entry)

DE Sequence of the heavy chain variable region of the D1.3 antibody.

XX

KW Recombinant altered antibody; humanised monoclonal antibody.

XX

FH Key

FT Peptide

Location/Qualifiers

Region 1..19

FT /label= Signal

Region 49..51

FT /note= "residues which contact lysozyme"

FT Region 71..73

FT /note= "residues which contact lysozyme"

FT Region 118..121

FT /note= "residues which contact lysozyme"

FT Region 50..54

FT /label= CDR 1

FT 69..84

FT /label= CDR 2

FT 117..124

FT /label= CDR 3

XX

FN EP239400-A.

XX

PD 30-SEP-1987.

XX

PF 26-MAR-1987; 87EP-0302620.

XX

PR 27-MAR-1986; 86GB-0007679.

XX

PR 26-MAR-1987; 87GB-0007252.

XX

PA (WINT/) WINTER G P.

XX

P1 Winter GP;

XX

DR WPI; 1987-27811/39.

SP N-PSDB; AAN72111.

XX

Recombinant altered antibodies - having complementarity determining regions replaced with those from antibody of different specificity

XX

PS Example; Fig 7; 41pp; English.

CC The method of the invention is used for "humanising" non-human monoclonal antibodies (Mabs) eg CDRs from mouse Mab can be partially or totally grafted into the framework regions of a human Mab, which is then produced in quantity by a suitable cell line.

CC CDR= complementarity determining regions. The antilysozyme antibody CC D1.3 (H2K2) has two heavy chains of the mouse IgG1 class (H) and two kappa light chains (K).

XX Sequence 135 AA;

XX

Query Match 71.4%; Score 529.5; DB 8; Length 135;

Best Local Similarity 71.1%; Pred. No. 7.6e-41;

Matches 101; Conservative 14; Mismatches 20; Indels 7; Gaps 1;

SQ 1 MAVLVFLCLIVAFPSCLVQVOLQESGPGLVVKPSOTLISUTCTVWSOPSLTSYGVVWVRQPP 60

Db 1 mavianlfclvtfpsclvqvklespglvapsqslsitsctvsgfsitggygnwvrqpp 60

RESULT 8

ID AAW30277

XX

AC AAW30277 standard; protein; 137 AA.

XX

Key

FT Protein

Location/Qualifiers

FT /note= "Mature protein"

FT Binding-site 49..54

FT /note= "Complementarity determining region 1"

FT Binding-site 68..84

FT /note= "Complementarity determining region 2"

FT Binding-site 116..126

FT /note= "Complementarity determining region 3"

XX

PN WO9737029-A1.

XX

PD 09-OCT-1997.

XX

PF 19-MAR-1997; 97WO-US04198.

XX

PR 22-MAR-1996; 96US-0621751.

XX

PA (BOEFL) BOEHRINGER MANNHEIM GMBH.

PA (PROT-) PROTEIN DESIGN LABS INC.

XX

PI Chang CN, Landolff NF, Martin U;

XX

DR WPI; 1997-503114/46.

DR N-PSDB; AAT90984.

XX

PT Antibodies to Platelet derived growth factor beta receptor - inhibit PDGF BB-induced proliferation of cells expressing the receptor, used particularly for inhibiting intimal hyperplasia

XX

PS Claim 4; Fig 1D; 87pp; English.

CC This is the amino acid sequence for the heavy chain of mabM4TS 22, a novel antibody which specifically binds to the platelet derived growth beta receptor (PDGF-R beta), but not within the fifth extracellular Ig-like domain, where the antibody inhibits PDGF BB-induced proliferation of a cell expressing the PDGF beta receptor.

CC The antibody can be used in a method of inhibiting intimal hyperplasia in the vasculature of a mammal. The antibodies can be used for the treatment of disorders related to PDGF activity such as disorders involving proliferation of smooth muscle cells, and including restenosis following angioplasty.

XX

Query Match 71.1%; Score 527.5; DB 18; Length 137;

Best Local Similarity 71.1%; Pred. No. 1.2e-40;

SQ Sequence 137 AA;

Matches 101; Conservative 14; Mismatches 22; Indels 5; Gaps 1; CC particularly suitable for preclinical testing.

CC XX Sequence 138 AA;

Query Match 71.0%; Score 527; DB 17; Length 138;

Best Local Similarity 71.1%; Pred. No. 1.3e-40;

Matches 101; Conservative 23; Indels 4; Gaps 1;

Query Match 71.0%; Score 527; DB 17; Length 138;

Best Local Similarity 71.1%; Pred. No. 1.3e-40;

Matches 101; Conservative 14; Mismatches 23; Indels 4; Gaps 1;

QY 1 MAVLYFLCLIVAPFSPCVLSQVQESGIGLVKRSQTSLSLCTVSGFELTSIGVYWRQPP 60

Db 1 mavalliclvtfscafsqvlkespgqlvtsqslsitsctvsgsltynainwvrqpp 60

QY 61 GKGLEWLGVYIAGGTNTVNSALMSRLTISKDTSKNQVSLKLSSVTAADTAVYCARQPPH 120

Db 61 qgglewlgiwtggtsalsksrlsksqvlkmnslqtdtarycar--- 116

QY 121 AMMKRGYAMDYWGQGTIVYSS 142

Db 117 -tgtxyffaywgqgttlyss 137

RESULT 9

AAW01146 standard; Protein; 138 AA.

XX AAW01146: (first entry)

XX DE 10-FEB-1997 (first entry)

XX DE 10.1 heavy chain, directed against type II phospholipase A2.

XX Monoclonal antibody; phospholipase; myocardial infarction; colitis; pancreatitis; cerebral infarction; acute kidney failure; colitis; chronic rheumatism; adult respiratory distress syndrome; hybridoma.

XX Monoclonal antibody; treatment; preclinical testing; disease; hybridoma.

XX OS Mus musculus.

XX Key

FT Binding-site 50..54 /label= CDR 1

FT Binding-site 69..84 /label= CDR 2

FT Binding-site 117..127 /label= CDR 3

FT Binding-site 117..127 /label= CDR 3

FT Location/Qualifiers

XX PN W09620959-A1.

XX PD 11-JUL-1996.

XX PR 27-DEC-1995; 95WO-JP02714.

XX PR 29-DEC-1994; 94JP-0340006.

XX (YAMA) YAMANOUCHI PHARM CO LTD.

PT Kawauchi Y, Masuho Y, Takasaki J, Yasunaga T;

XX WPI; 1996-333946/33.

DR N-PSDB; AAT40805.

XX PT Monoclonal antibody inhibiting type II phospholipase A2 activity - for treatment of myocardial and cerebral infarction

XX PS Claim 6; Figure 14: 69pp; Japanese.

XX CC Monoclonal antibodies which inhibit type II phospholipase A2 are useful in the treatment of myocardial infarction, cerebral infarction, acute kidney failure, chronic rheumatism, cardiac shock, pancreatitis, adult respiratory distress syndrome and colitis. The antibodies were generated by immunising Balb/C mice with recombinant human type II phospholipase A2. Spleen cells from the mice were fused with mouse myeloma P3x6A98 (U1) and the hybridomas obtained were screened for phospholipase A2 inhibitory activity. Active clones were isolated including 1215, 1, 4 and 10, 1. These were cultured and the antibody isolated from the culture supernatant by precipitation with ammonium sulphate and purification on a column of protein A-Sepharose CL4B. Because the antibody acts on the primate and mouse forms of enzyme as well as human it is particularly suitable for preclinical testing.

CC XX Sequence 138 AA;

Query Match 71.0%; Score 527; DB 17; Length 138;

Best Local Similarity 71.1%; Pred. No. 1.3e-40;

Matches 101; Conservative 23; Indels 4; Gaps 1;

QY 1 MAVLYFLCLIVAPFSPCVLSQVQESGIGLVKRSQTSLSLCTVSGFELTSIGVYWRQPP 60

Db 1 mavalliclvtfscafsqvlkespgqlvtsqslsitsctvsgsltynainwvrqpp 60

QY 61 GKGLEWLGVYIAGGTNTVNSALMSRLTISKDTSKNQVSLKLSSVTAADTAVYCARQPPH 120

Db 61 qgglewlgiwtggtsalsksrlsksqvlkmnslqtdtarycar--- 116

QY 121 AMMKRGYAMDYWGQGTIVYSS 142

Db 61 gnglewgmiwtgdgtdynsvksrlsksqvlkmnslqtdtarycardayy 120

RESULT 10

AAR38492 standard; Protein; 119 AA.

XX ID AAR38492; (first entry)

XX AC AAR38492;

XX DT 12-OCT-1996 (first entry)

XX DE NEWM humanised 2B6 antibody heavy chain variable region.

XX KW Antibody engineering; humanised antibody; chimeric antibody; Fab; interleukin-5; IL-5; eosinophil; asthma; allergic rhinitis; atopic dermatitis; therapy; diagnosis; heavy chain; VH; monoclonal antibody; MAb.

XX KW Synthetic.

XX FH Key

FT Region 1..30 "human NEWM framework region"

FT Region 31..35 "human NEWM framework region"

FT Region /label= CDR1

FT Region /note= "mouse MAb 2B6 VH CDR1"

FT Region 36..49 "human NEWM framework region"

FT Region 50..65 "human NEWM framework region"

FT Region /label= CDR2

FT Region /note= "mouse MAb 2B6 VH CDR2"

FT Region 66..97 "human NEWM framework region"

FT Region 98..108 "human NEWM framework region"

FT Region /label= CDR3

FT Region /note= "mouse MAb 2B6 VH CDR3"

FT Region 109..119 "human NEWM framework region"

XX PN W09621000-A2.

XX PD 11-JUL-1996.

XX PR 22-DEC-1995; 95WO-US17082.

XX PR 06-JUN-1995; 95US-0470110.

XX PR 23-DEC-1994; 94US-036131.

XX PR 06-JUN-1995; 95US-0467420.

XX PA (SMIK) SMITHKLINE BECHAM CORP.

XX PA (SMIK) SMITHKLINE BECHAM PLC.

XX Ames RS, Appelbaum ER, Chaiken IM, Cook RM, Gross MS;

PI Holmes SD, McMillan LJ, Theisen TW;

PI Holmes SD, McMillan LJ, Theisen TW;

CC

X WPI; 1996-333976/33.
X N-PSDB; AAT34095.

X New monoclonal antibody to human interleukin-5 - used to produce
X T T T T products for the treatment and diagnosis of conditions associated
X with excess eosinophil prodn., e.g. asthma etc.

X Claim 28; Page 87-88; 120Bpp; English.

X The heavy chain variable region (AAR98492) of NEWM humanised antibody
X 2B6 comprises complementarity determining regions (see also AAR98480-82)
X derived from murine monoclonal antibody 2B6 VH (see also AAR98478) and
X framework regions from human immunoglobulin NEW, but with amino acid
X substitutions made at framework residues that might influence CDR
X presentation. A synthetic variable light chain sequence (AAR98493)
X was also constructed. Humanised 2B6 (see also AAR98488-89) is
X specific for human interleukin-5 (IL-5) and can be used for the
X diagnosis and treatment of IL-5-mediated conditions, e.g. asthma,
X allergic rhinitis and atopic dermatitis.

X Sequence 119 AA:

Query Match	Match	70 - 8%	Score	525;	DB	17;	Length	119;
Best Local Similarity		81.3%			Fred.	No.	1.7e-40;	
Matches 100;	Conservative	11;	Mismatches	8;	Indels	4;	Gaps	
20	QYQLOESGPGLVYKPSOTLSTCTVSGFSITSYGYWROPPGKGLEWLGVIWAGGTNNY	79						
1	qvqigespgvrpqglstctvsgfsitsygvhawtqppggq1ewgviwasgqtdyn	60						
80	SALMSRLTISKDTSTKNOYSKLSSVTAADTAVYICARGPPHAMMKRGYAMDWYQGQTAVT	139						
61	salmsrlsilkdnslnsqnsrlsasvtaadtavyicarcppssllr---ldywqgqtvt	116						
140	VSS	142						
117	vss	119						

ISUUTR 11
B66656
AAB69656 standard; protein; 138 AA.
AAB63656;
30-APR-2001 (first entry)
Murine mik-beta1 antibody heavy chain SEQ ID NO: 33.
Humanised immunoglobulin; mouse; human; antibody; heavy chain; diabetes; light chain; graft versus host disease; transplant; autoimmune disease; multiple sclerosis; rheumatoid arthritis; systemic lupus erythematosus; myasthenia gravis; herpes infection; myeloid leukaemia; CMV infection.
Mus sp.

US6180370-B1.	Queen CL, Selick HE;
30-JAN-2001.	
07-JUN-1995;	95US-0484537.
28-FEB-1988;	88US-0296975.
13-FEB-1989;	89US-0310252.
28-SEP-1990;	90US-0591274.
19-DEC-1990;	90US-0634278.
(PROT-) PROTEIN DESIGN LABS INC.	

WPI: 2001-190856/19.
DR DR N-PSDB; AAF58728.
XX PT Producing humanized immunoglobulin, involves producing a cell
XX PT containing DNA segments encoding humanized heavy and light chain
XX variable regions, and expressing the DNA segments in the cell -
XX
PS Example 5; Fig 23: 145pp; English.
XX
CC The present invention describes a method of producing humanised
CC immunoglobulins involving expressing in a cell a nucleic acid encoding a
CC humanised version of an immunoglobulin. This is obtained by comparing a
CC donor and human immunoglobulin and producing a combined antibody which
CC contains part of each. These are useful in the treatment of
CC graft-versus-host disease, transplant rejection, autoimmune diseases such
CC as diabetes, rheumatoid arthritis, myasthenia gravis, multiple sclerosis
CC and systemic lupus erythematosus, herpes infections, CMV virus infections
CC and myeloid leukaemia. The present sequence is an antibody used to
CC demonstrate the method of the invention.
Sequence 138 AA;
XX SQ

Query	Match	70.8%	Score 525;	DB 22;	Length 138;
Best Local Similarity	70.4%		Pred. No. 2e-40;		
Matches 100;	Conservative	21;	Mismatches	17;	Indels 4;
					Gaps 2
Qy	1 MAVLVLFCLVAFPSCVLSQVOLQESGPGLYKPSQTSLTCTVSGFSLTSYGVYWVRQPP	60			
Db	1 mayglleclvtfpscvlsqvgkqsggq1vqsgsqslitctvsgfsstsgyhwirvtt	60			
Qy	61 GKGLEWLGIVIAGGTNTYNSALMSRLTISKDTSKNOVSIKLSSVTAADTAVYVYCARQPH	120			
Db	61 gkglewlgivwsggstdynaafisrltsksdnsksqffkvns1qpdaitjycaragdy	120			
Qy	121 AMMKRGYAMDNGQGTLYTVSS	142			
Db	121 ny -dggfa -ywgqgtlvtsva	138			

key	Location/Qualifiers	Region	1..30
RTT	/label= FRI	RTT	1..30
RTT	/note= "NEW framework region 1"	RTT	31..35
RTT	/label= CDR1	RTT	36..49
RTT	/note= "2B6 complementarity determining region 1"	RTT	36..49
RTT	/label= FR2	RTT	50..65
RTT	/note= "NEW framework region 2"	RTT	50..65
RTT	/label= CDR2	RTT	66..97
RTT	/note= "2B6 complementarity determining region 2"	RTT	66..97
RTT	/label= FR3	RTT	note= "NEW framework region 3"

Region	98 . 108	
	/label= CDR3	
	/note= "2B6 complementarity determining region 3"	
Region	109 . 119	
	/label= FR4	
	/note= "NEW framework region 4"	
Region	XX	
	WO9748418-A1 .	
	PN	
	XXX	
	PD	24 -DEC-1997 .
	XX	20 -JUN-1997 ;
	PF	97WO-US10769 .
	XX	
	PR	21 -JUN-1996 ;
	XX	96US-0667769 .
	(SMIK)	SMITHKLINE BEECHAM CORP .
	XX	
	Appelbaum ER,	COOK RM ;
	XX	
	WPT;	1998-062853/06 .
	NP	
	PSDB;	AAV03505 .
	DP	
	PT	
	PT	use of neutralising antibody to human interleukin-5 - that does not
	PT	block binding to receptor alpha chain, to treat e.g. asthma,
	PT	allergic rhinitis or atopic dermatitis
	PT	
	PT	Example 4; Fig 12; 116pp; English.
	PS	
	PS	
	XX	
	CC	This polypeptide comprises a humanised antibody heavy chain
	CC	variable region composed of human NEW framework regions and
	CC	complementarity determining regions (see AAW42457-59) derived from
	CC	anti-human interleukin-5 (hIL-5) murine monoclonal antibody (MAB)
	CC	2B6 heavy chain (see AAW42451). It is encoded by a DNA construct
	CC	(see AAV03505) in vector pCMV5NEW. The invention provides
	CC	antibodies, especially altered, chimeric and humanised antibodies
	CC	which are characterised by hIL-5 specificity, neutralising activity
	CC	and affinity for hIL-5. The antibodies are useful for treating
	CC	hIL-5-mediated disorders such as asthma, allergic rhinitis and
	CC	atopic dermatitis, and can also be used in the diagnosis of such
	CC	conditions by measurement (e.g. by ELISA) of endogenous hIL-5
	CC	levels. Also provided are vectors and transformed host cells for
	CC	expression of the novel antibodies
	CC	CC

QY	1 MAVLVFLCLVAPPSCVLSQVLOQESPGGLVKPSTQTLSTCTVSGFSLTSYGVYWWQPP	60
Db	1 <u>ma</u> lv <u>fl</u> clv <u>app</u> scv <u>lsq</u> vl <u>kp</u> st <u>q</u> tl <u>st</u> ctv <u>sg</u> fs <u>lt</u> sy <u>gv</u> yww <u>q</u> pp	60
QY	61 GKGLWLGIVWAGGTIVWAGGTIVNSALMSRLTISKDTSKDTNOVSLKLSSVTAADTAIVYCARGP	120
Db	61 gkglwlgivwaggtivwaggtivnsalmsrltiskdtskdtnovslklssvtaadtaivycar	120
QY	121 AMMKRGYAMDYWGCGTLYTVSS	142
Db	61 gkglwlgivwaggtivwaggtivnsalmsrltiskdtskdtnovslklssvtaadtaivycar	142
QY	117 altydydefaywggtlvtvsa	138
Db		
RESULT	14	
AAW05823		
ID	AAW05823	standard; Protein; 116 AA.
AC	AAW05823;	
XX	XX	
XX	DT	27-JAN-1997 (first entry)
XX	DE	Humanised 1D10 antibody heavy chain variable region.
XX	DE	B-cell lymphoma; humanised antibody; bispecific antibody;
KW	KW	myeloma; leukaemia; hybridoma; monoclonal antibody.
KW	XX	
Chimeric	Homo sapiens;	
Chimeric	Mus sp.	
OS		
OS		

The humanised 1D10 antibody heavy chain (AAW05827) includes a variable region (see also AAW05823) consisting of human R3.5HG heavy chain variable region framework and complementarity determining regions from the murine 1D10 antibody specific for a 28/32 kDa antigen found on the surface of malignant B-cells. It can be coexpressed with humanised 1D10 light chain (see also AAW05828) in mammalian host cells. Bispecific antibodies can be constructed that include a first binding fragment comprising humanised M291 heavy and light chain variable regions (see also AAW05826, AAW05830), and a second binding fragment comprising humanised 1D10 heavy and light chain variable regions. Such antibodies are reactive with both T or NK cells and malignant B cells, and have therapeutic and diagnostic applications.

xx	5Q	Sequence	273 AA:	Query Match	69.5%	Score	515.5;	DB	17;	Length	273;
				Best Local Similarity	80.5%	Pred.	No.	3.1e-39			1;
				Matches 99, Conservative		10.	Mismatches	7;	Indels	7;	Gaps
				QY	20	QYQLOQESGPGLVKPQSQTLSITCTVSGFSLTISYGVWVROPPQGLEWLGVIWAGGTTNNV	79				
				Db	1	qvqj1qesgrg1qvpset1slctvsgfslt1nyghwvqspqk1ewiykws9gsteyn	60				
				QY	80	SALMSRLTISKDTSKNQVSKLSSVTAADTAVYCCARGPPHAMMKRGYAMDYWGQCTLVN	139				
				Db	61	:aafsrlltiskdtksknqvs1kinsitaaddavyycarnd-----ryandywgq9t1vt	113				
				Qy	140	VSS	142				
				Db	114	VSS	116				

search completed: May 7, 2002, 12:00:49
Search time: 127 sec